Attorney's Docket: 2003DE411

Art Unit 1621

Response to First Office Action mailed 08/09/2006

This listing of claims will replace all prior versions, and listings, of claims in the application:

(Previously Presented) A method for inhibiting gas hydrate formation in a mixture of hydrocarbon and water, said method comprising adding to the mixture a compound of formula (1)

where

 $R^1$ ,  $R^2$  are each independently  $C_1$ - to  $C_{22}$ -alkyl,  $C_2$ - to  $C_{22}$ -alkenyl,  $C_6$ - to  $C_{30}$ -aryl or  $C_7$ - to  $C_{30}$ -alkylaryl,

R<sup>3</sup> is C<sub>1</sub>- to C<sub>22</sub>-alkyl, C<sub>2</sub>- to C<sub>22</sub>-alkenyl, C<sub>6</sub>- to C<sub>30</sub>-aryl or C<sub>7</sub>- to C<sub>30</sub>-alkylaryl,
-CHR<sup>5</sup>-COO or  $-O^-$ ,

R<sup>4</sup> is M, hydrogen or an organic radical having from 1 to 100 carbon atoms,

B is straight-chain or branched C<sub>1</sub>- to C<sub>30</sub>-alkylene group,

D is an organic radical having from 1 to 600 carbon atoms,

X, Y are each independently O or NR<sup>8</sup>,

 $R^6$ ,  $R^6$  are each independently hydrogen,  $C_{1^-}$  to  $C_{22^-}$  alkyl,  $C_{2^-}$  to  $C_{22^-}$  alkenyl,  $C_{6^-}$  to  $C_{30^-}$  aryl or  $C_7$  to  $C_{30^-}$  alkylaryl, and

M is a cation.

2.(Withdrawn) The method of claim 1, wherein B contains hydroxyl groups.

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3.(Previously Presented) The method of claim 1, wherein B is a C<sub>2</sub>- to C<sub>4</sub>-alkylene group.

4.(Previously Presented) The method of claim 1, wherein R¹ and R² are each independently an alkyl or alkenyl group of from 2 to 14 carbon atoms.

5.(Previously Presented) The method of claim 1, wherein R³ is an alkyl or alkenyl group having from 1 to 12 carbon atoms.

6.(Previously Presented) The method of claim 1, wherein R<sup>5</sup> and R<sup>6</sup> are hydrogen.

7.(Previously Presented) The method of claim, wherein R4 is a radical of the formula (2)

$$\begin{array}{c}
R^{1} \\
\downarrow^{+} \\
R \\
\downarrow^{3}
\end{array}$$
(2)

where R1, R2, R3 and B are each as defined in claim 1.

8.(Previously Presented) The method of claim 1, wherein D is a  $C_2$ - to  $C_{50}$ -alkylene or  $C_2$ - to  $C_{50}$ -alkenylene group.

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9.(Previously Presented) The method of claim 1, wherein D is derived from substituted succinic acid derivatives having from 10 to 100 carbon atoms.

10.(Previously Presented) The method of claim 1, wherein D is a radical of the formula (3)

$$R^{1}$$
  $O$   $O$   $Y-R^{4}$  (3)

where

 $R^7$  and  $R^{12}$  are each either hydrogen or a  $C_2$ - to  $C_{100}$ -alkyl or  $C_2$ - to  $C_{100}$ -alkenyl radical which is obtainable as an oligomer of  $C_2$ - to  $C_8$ -alkenes and may be straight-chain or branched, with the proviso that exactly one of the  $R^7$  and  $R^{12}$  radicals is hydrogen, and  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ , X, Y and B are each as defined in claim 1.

11.(Withdrawn) The method of claim 1, wherein D is a radical of the formula (4)

\* 
$$CH_{2}$$
  $(-O-A-)_{m}$   $O-B-O-(-A-O-)_{n}$   $CH_{2}$  \* (4)

where A is a C2- to C4-alkylene group which may be straight-chain or

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branched, m and n are each independently a number in the range from 0 to 30 and B is as defined in claim 1.